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ABSTRACT

In developing understanding of social roles, preschool children proceed from an initial awareness of single behavioral categories to the ability to comprehend, first, simple relationships between categories, and second, complex systems of categories. At each developmental level, children show characteristic modes of distortion when faced with situations requiring skills more advanced than they possess. At the level of understanding single behavioral categories, preschool children demonstrate the process of "globbing," in which several categories are mixed. At the level of comprehending simple relationships between categories, preschool children's behavior is characterized by stereotyping based on social evaluations of categories. With respect to the level at which complex systems of categories are understood, typical distortions involve rigid or literal adherence to particulars of a social rule or category. However, it is important not to misinterpret this developmental sequence. Children do not show the same level across all situations; the degree of structure or support provided by the immediate context influences the expression of children's awareness of social categories in the same general situation. In addition, the degree of disparity between developmental levels shown in spontaneous contexts seems to increase in the late preschool years. (RH)

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PUTTING THE CHILD INTO SOCIALIZATION: THE DEVELOPMENT OF SOCIAL CATEGORIES IN PRESCHOOL CHILDREN

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Every child is born into a specific society and must learn the categories and rules prescribed by that society. Children must understand, for example, what boys and girls are, what children and adults are, what doctors and patients (or their society's equivalents) are, and how people in each of these categories are supposed to act. Without an understanding of these social categories and rules, children cannot act competently as members of their society.*

The processes by which a society teaches children these categories, as well as numerous other social rules, are collectively called socialization. Analysis of the processes of socialization has been one of the central focuses of developmental theory and research, and there has been substantial progress toward explaining how a society affects its children (e.g., Hartup, 1970; Maccoby, 1980). Existing theories of socialization have virtually all tended to suffer from a single shortcoming, however: They have focused almost entirely on the impingement of the society on children and have neglected the role that the developing child plays in his or her own socialization (see Lerner & Busch-Rossnagel, 1981).

A full understanding of the processes of socialization in childhood requires taking into account how children understand what is demanded of them and how that understanding changes with development. In socialization as in all other types of learning, children are not merely passive recipients of pressures to behave in a certain way. They strive to under-

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stand what is demanded of them, and they behave in terms of that understanding (Fischer, 1980; Kohlberg, 1966).

The classical cognitive-developmental approach, however, has not provided much help in analyzing the development of social categories in preschool children. Piaget's (1924/1928, 1946/1951) general argument was that the child did not really understand social roles and other social categories until the elementary school years, when he or she entered the concrete operational period, and other research in the Piagetian tradition has mostly supported his argument (e.g., Bigner, 1974; Marcus & Overton, 1978). Nevertheless, anyone who has worked with preschool children realizes that there is something seriously wrong with the Piagetian claim. Indeed, preschool children seem often to be obsessed with social categories and rules.

Recent research and theory has corrected the mistaken portrait. A large number of studies have shown that the cognitive capacities of the preschool child are much richer than were portrayed by Piaget (Case & Khanna, 1981; Fischer, 1980; Gelman, 1978). The development of social cognition--knowledge about people and interactions with them--seems to be especially notable during this period. By age 2, most preschoolers know that other people are independent agents, and they quickly put this knowledge to use to build categories for making sense of people's actions. By the age of 3, they seem to have mastered a number of these categories, and then over the next few years they proceed to gradually decipher the relations and complexities of social categories. With the beginning of elementary school, they have become highly competent at functioning in their society.

PHASES OF DEVELOPMENT AND PHASES OF SOCIALIZATION

There is so much for children to learn about their societies. Although the preschool period seems to be an especially important time for social learning, much is also learned in infancy, elementary school, adolescence, and even adulthood. An understanding of the nature and limitations of preschool development requires placing the events of the preschool period in the broader context of social-cognitive development throughout the lifespan.

Social-cognitive development seems to proceed through three general phases. In infancy, babies learn the most basic skills of social interaction. In childhood, they learn concrete social categories and the rules associated with them. In adolescence and adulthood, they learn about social systems and networks, and how to operate within them.

Infancy: Learning How to Interact

Infants are born enmeshed in a family and a society, and they are of course affected by that society at many different levels. But in the first two years of life, the major focus of what they learn is the fundamentals of social interaction--how to take turns, how to talk to someone, how to get someone to do what you want. Most of this learning occurs in the family setting.

The development of turn-taking has been described in some detail by Kaye (1982), Sander (1975), and others. Shortly after birth, most infants take part in their first turn-taking as they nurse at breast or bottle. The mother establishes an interaction where baby and mother take turns: The baby sucks for a while, and when he or she happens to pause, the mother jiggles him for a moment and pauses. Sucking then resumes until

the baby pauses again, the mother jiggles again, and so forth. In this very early form of turn-taking, the baby need hardly contribute anything at all, since the mother can establish the back-and-forth tempo by herself. It is enough for the baby to suck periodically to "participate" in turn-taking.

Within a few months, however, infants begin to anticipate the back-and-forth rhythm of feeding, and by the end of the first year, they have established turn-taking as a basic type of social interaction, even generalizing it to situations that their parents did not initiate. For instance, mother feeds 1-year-old Joey some baby cereal, and then Joey wants to feed her some.

In language development, too, fundamental sensorimotor patterns of social interaction are laid down in infancy. By about 1 year of age, for example, most children regularly produce what is called "expressive jargon" (Fischer & Corrigan, 1981): They use the intonation contour of a sentence without actually saying any words. A caregiver can even hold a "conversation" in expressive jargon with a skilled infant, alternating with the child in producing "sentences without words."

Besides turn-taking and expressive jargon, 1-year-olds have also learned many procedures for influencing others to do what they want--not only crying or whining, but also calling out for "Mama," pointing to a desired object, extending outstretched hands so as to be picked up, and so forth (Kaye, 1982; Tronick, 1982).

With their sensorimotor intelligence, infants have already mastered many of the fundamental rules of social interaction by the second year of life. Sensorimotor intelligence is limited, however, to connecting sensations or perceptions with responses (Fischer, 1980; Piaget, 1936/1952).

Consequently, the rules of social interaction are defined by and manifested in the actions of the infant and do not take the form of general concepts. It is not until the next period of childhood that true concepts concerning social interactions emerge. Clearly, the social-interaction skills of infancy are merely a beginning, since social interactions will become so much more complicated as the child comes to understand social categories and social systems.

Childhood: Learning Social Categories

At about the age of 2 years, toddlers develop a radically new mental capability called representation, which allows them to move beyond the sensorimotor intelligence of infancy (Corrigan, in press; Fischer, 1980; Piaget, 1946/1951). One of the first results of this new capability is that the toddler can represent other people as independent agents, who act on their own independently of the child's actions (Fischer & Jennings, 1981; Rubin, Fein, & Vandenberg, in press; Watson & Fischer, 1977).

The capability of representing other people as independent agents gradually leads to the ability to categorize other people's actions in the ways they are defined by society. With this ability comes the first blossoming of social categories. Here is how boys act, here is how men act, here is how girls act, and so forth. The development of these social categories into roles and other social relations comprises the heart of this article and so will be described in detail later.

Notably, all these categories involve concrete behaviors and characteristics. As late as age 10 or 11, there is still no understanding of social systems or networks. Children do not understand social categories the way a sociologist or political scientist thinks of them, in terms of their relation to a set of social roles and norms in a social system. Instead,

they conceptualize social categories in concrete, personal terms (Adelson, 1975; Rosenberg, 1979). The role of President of the United States, for example, is typically understood as the position that allows an individual to tell anyone what to do--in other words, the "big boss."

Adolescence and Adulthood: Learning Social Systems and Networks

Just as the new capability of representation ushers in a new phase in social development at 2 years of age, so the new capability of abstraction brings another new phase at 10 to 12 years. The young adolescent becomes able to go beyond the concrete characteristics of real people in social categories to understand those categories in more general, less tangible terms (Adelson, 1975; Rosenberg, 1979; Selman, 1980). To the child at this age, the President does more than order people around; he is the head of state and commander in chief, in charge of making the government carry out its many functions effectively and honestly.

This kind of understanding requires that social categories be considered not just in the concrete terms of how real people interact with each other but in the abstract terms of how social systems and networks operate and how people fill niches in those systems. Only the first glimmering of understanding of social systems and networks appears by 12 years of age, of course. Development continues beyond that age, probably at least until the mid-20s (Broughton, 1978; Fischer, Hand, & Russell, in press; Kitchener & King, 1981).

The topic of this chapter is the development of social categories during the preschool years, not the development of understanding social systems and networks. It is important, however, to place preschool development in the context of the entire lifespan. In an important sense, the concrete social categories developed during the childhood years merely lay

the foundation for the more sophisticated understandings that eventually make the adult a fully participating member of society.

THE DEVELOPMENT OF SOCIAL CATEGORIES

Progress in children's understanding of social categories is slow and gradual, with important developments appearing as early as 1 year of age and as late as the elementary school years. The course of development between 1 and 7 years is systematic but complex. On the one hand, children show systematic developments of social-cognitive abilities at certain ages, but on the other hand, the age of development of an ability varies enormously depending upon the particular task and context in which it is assessed.

Traditionally, there have been two opposing approaches to studying social development. Socialization approaches, which are based on learning theory, have emphasized how different tasks and contexts produce variations in social development. Cognitive-developmental approaches, based on theories such as Piaget's (1924/1928; 1946/1951), have emphasized how children's social understandings change systematically with age. The contradiction between these two types of approaches is more apparent than real, however. There can be both systematic change with age and variation across tasks and contexts at the same time (Fischer & Bullock, 1981; Hand, 1981-b).

Both Child and Environment

Both the child and the environment obviously contribute to any particular behavior, and a full explanation of developing behavior therefore requires consideration of both. The traditional emphasis on either changes in the child or influences of the environment will not suffice.

Since environmental factors are always contributing to performance, it is misleading to attribute a general capacity for understanding some type of social category to a child of a particular age. A child does not develop a single general capacity to understand, for example, the social role of doctor; instead, the ability he or she demonstrates varies widely across tasks and contexts. This unevenness in performance is what Piaget (1941) called "décalage horizontal."

Because there is no single age at which an ability is seen in all situations, it is not possible to attribute one age to each step in the development of social categories. What can be done, however, is to describe the age of first development of an ability, when most children demonstrate it on the simplest task that can be devised to assess that ability. With this task as an anchor point, researchers can then proceed to describe how the child gradually becomes able to demonstrate the ability on more complex tasks and in a wider range of contexts (Bertenthal, 1981).

In the case of social categories, the simplest tasks that we have been able to devise generally involve imitative pretend play. The individual child is shown a pretend story in which dolls behave according to certain social categories; for example, a doctor-doll examines a patient-doll who is sick. The child is then asked to act out a similar story. Using a general cognitive-developmental approach known as skill theory (Fischer, 1980), we have been able to predict the developmental sequences in which children can act out such stories and the ages at which various steps in the sequences develop. We have also begun to pin down some of the factors that lead to unevenness in performance with changes in context, as will be explained later.

Skill theory is designed to integrate the insights of traditional cognitive-developmental approaches, such as Piaget's, with the insights of environmentally oriented approaches, such as behaviorism. It analyzes development in terms of a series of developmental levels and a set of transformation rules specifying how children can construct more complex skills and thus gradually move from level to level. The processes embodied in the transformations are various forms of combination and differentiation of skills. The theory is constructed in such a way that every skill is defined for an individual child performing a particular task in a specific context. Its constructs thus combine the contributions of the child with the influences of the environment. According to skill theory, these constructs can be used to predict developmental sequences for any child acting in any domain. These processes of development are elaborated in several published explications of skill theory (Fischer, 1980; Fischer & Corrigan, 1981; Fischer & Pipp, in press-a).

Development of Social Roles

One of the most fundamental types of social category is the social role, a cluster of behaviors and characteristics prescribed for a particular category of people, such as doctors or mothers. Despite the importance of roles in all human societies (Edwards & Whiting, 1980; Linton, 1942; Mead, 1934), there has been relatively little research on the development of roles, except for those relating to gender.

In our research we used skill theory to predict a general developmental sequence of role understanding from infancy to adolescence, as shown in Table 1. We tested the sequence in a series of studies of two types of roles--those relating to a medical doctor and those occurring within the nuclear family (Watson, 1981; Watson & Amgott-Kwan, in press; Watson &

Fischer, 1977, 1980; Westerman, 1979). In general, the strong-scalogram method was used--a separate task was devised to test each step, so that performance could be independently assessed on every step in the sequence (Fischer, Pipp, & Bullock, in press). Because one session did not provide enough time to administer the tasks for all steps, each study tested a subset of the steps in the sequence.

In most of the studies, all the tasks employed the imitative pretending technique. For each step, the child was shown a story that embodied the skill predicted for that step, and he or she was asked to act out a similar story. In one of the studies, children answered questions concerning the role relationships of realistic cardboard dolls embodying every major family role (Watson & Angott-Kwan, in press). Subjects ranged from 1 to 7 1/2 years of age and were from middle-class families in the Denver and Boston areas.

Because each step was assessed separately, it was possible to test the predicted sequence for every individual child by examining the pattern of "passes" for the set of tasks. To support the predicted sequence, children had to pass all tasks up to some point in the sequence and fail all tasks after that point; that is, their performance had to fit a Guttman (1944) scale. More than 200 children were tested in the several studies, and over 90% of them fit the predicted sequence perfectly. This percentage is virtually as high as could be obtained, given the degree of measurement error in the tasks.

In addition to the strong-scalogram assessment, most of the studies also tested behavior under one or more spontaneous conditions, in which the child made up his or her own stories. Behavior under the several conditions was then compared.

It is important to realize that in everyday behavior, individual children will not necessarily demonstrate all the steps in the sequence in Table 1. Children will show these steps only when they are exposed to contexts that elicit the requisite behaviors. Also, in certain contexts children will show additional steps besides the ones that we have assessed. According to skill theory, no fixed number of developmental steps exists in any content domain; instead, the number of steps varies across children and contexts. However, the sequence tested is intended to reflect typical steps in the development of social roles for middle-class American children.

Insert Table 1 about here

Agency. Before children can understand that people behave in terms of social roles, they need to understand that people act on their own as independent agents. The first step in the developmental sequence involves what seems to be the earliest form of this ability, the understanding that the self can be a cause of action. This understanding is evidenced by the 1-year-old's pretending to do something--to drink, to eat, to wash, to sleep (Bretherton & Bates, 1979; Harter, in press; Rubin et al., in press; Watson & Fischer, 1977).

Gradually during the second year children move from self to other, so that at approximately 2 years they can represent other people as active agents (Step 4). They can make a doll walk across the table as if it were walking on its own (Dasen, Inhelder, Lavalee, & Retschitzki, 1978; Watson & Fischer, 1977), and they can understand that an adult experimenter can carry out hidden actions that cannot be seen (Bertenthal & Fischer, in press; Fischer & Jennings, 1981).

Behavioral roles. By the age of 2, then, children understand both themselves and other people as independent actors, but they still cannot coordinate people's actions into social categories. The first understanding of such categories appears at approximately 3 years, when the child combines several related actions of an independent agent to form a behavioral category. For social roles, this category is called a behavioral role (Step 6), or a collection of behaviors and characteristics related to a specific social role but missing the complementary role. For example, a 3-year-old makes a doctor doll wear a white coat and use a thermometer, a syringe, or an otolaryngoscope, but the doctor does not interact with a patient. The patient does not do anything at all, but is at best something to stick a thermometer and a syringe into. Most 3-year-olds understand a host of behavioral roles, including not only doctor but also mother, father, child, baby, babysitter, and so forth. They seem to be able to understand any common role that is defined by concrete behaviors or characteristics.

Many of the roles most common in daily life relate to gender, and a number of studies indicate that 3-year-olds do understand behavioral categories for the sexes (e.g., Kuhn, Nash, & Brucken, 1978; Van Parys, 1981; Watson & Amgott-Kwan, in press). The predominant gender categories seem to be boy, girl, man, and woman (Edwards, in press). Like gender, age defines a number of prominent social categories in all human societies, and children seem to understand many of the corresponding behavioral roles by the age of 3, at least in middle-class families in Western countries (Edwards, in press; Van Parys, 1981). Besides the gender-related age roles of boy, girl, man, and woman, 3-year-olds also understand categories such as baby, child, and adult.

Although these categories combine age and gender in real life, 3-year-olds do not seem to actually coordinate age and gender in their understandings (Edwards, in press; Van Parys, 1981). Instead, they treat the categories more simplistically, as if each one involved merely an independent type of person and not related dimensions. In general, 3-year-olds seem unable to deal with more than one category at a time (Fischer, 1980; Fischer & Watson, 1981).

Another common dimension of social categorization across cultures is race, although the experience of racial differences is not universal. Those children who do have experience with race seem to develop categories for it by about 3 years of age (e.g., Clark & Clark, 1947; Katz, 1982; Van Parys, 1981). These categories enable 3-year-old American blacks, for example, to discriminate blacks from whites and to place values on each race that reflect the differential evaluation made in their society. We can predict that children of this age also form behavioral roles based on race, but to our knowledge there have been no direct tests for such skills.

Gender, age, and race define behavioral roles per se, and there are many other instances of behavioral roles that preschool children routinely learn, such as the complementary roles of student and teacher (Lee & Voivodas, 1977). In addition, preschoolers learn many kinds of behavioral categories that are not themselves roles, although they are relevant to roles. The categories of work and play, for example, are closely related to many roles, including those of adult and child. By 3 years of age, most children can understand such behavioral categories, although they cannot yet relate them to roles. Play is a set of behaviors such as throwing a ball, blowing a whistle, and digging in a sandbox. Work is an independent set of behaviors, such as cooking dinner, planting flowers, and sitting at a desk (Tucker, 1979).

The understanding of behavioral categories constitutes a major advance over the earlier understanding of agency alone, because it allows children to group behaviors together in socially appropriate clusters. The behavior of a 2-year-old boy illustrates what is missing when a child does not understand behavioral categories: The boy turned over his tricycle and pretended that it was a washing machine in which he was washing clothes, as his mother did. When one of the authors asked him if he was pretending to be a mother, he acted confused and said that he was not a mother. Apparently, this 2-year-old was only carrying out a particular action, not acting out the behavioral role of mother. By the age of 3 most children can immediately understand such a question and elaborate other actions or characteristics that mothers do.

Social roles. The first true social role (Step 8) appears about a year later, at age 4, when the child coordinates two behavioral roles into a social relationship, an integration of a role with its complement. In role theory, every social role is defined in terms of its relation to at least one other category, called a complementary role. For example, doctor is defined in relation to patient, and mother in relation to child (Sarbin & Allen, 1968). A person in the role of medical doctor behaves according to a set of norms that require, among other things, that he or she display certain medical skills with a patient and try to help that patient overcome illness or stay healthy. Similarly, the person in the role of patient is expected to cooperate with the doctor in examination and treatment. Doctor and patient form a complementary role relation--a social role.

In pretend play, a child who understands the social role of doctor can make a doctor doll examine a patient doll, with the two interacting appropriately. This new capacity has important implications for children's

social competence, because it allows them to understand much more about conventional relationships between people. For instance, two brothers, one 3 and one 4½ years of age, repeatedly played storekeeper. The younger boy had a storekeeper doll stock the shelves and work in the store, thus showing a behavioral role, but he did not have the storekeeper interact with other dolls. The older boy made the game much more sophisticated for both children, supplying what was missing in the younger boy's play. He had the storekeeper interact with customers, asking them what items they wanted to buy, accepting pay, and pretending to order and stock what the customers needed. Thus, he added the complementary role interactions that are typical of social as opposed to behavioral roles.

The ability to define social roles has significance for many aspects of children's behavior besides pretending. Children, of course, define themselves partially in terms of social categories (Harter, in press; Kohlberg, 1966), and the development of social roles therefore affects their concepts of self. With this new ability, children can see the categories boy and girl as being specifically related: Lisa does not merely belong to the category of girl; she is a girl as opposed to a boy. Girl and woman are seen as specifically related in a different way: A girl is not merely a category of child, but she is a child who will become a woman. The ability to comprehend such relations for gender, age, and probably race and social class seems to first emerge at approximately 4 years of age (e.g., Connell, 1978; Edwards, in press; Katz, 1973, 1982; Ruble, Balaban, & Cooper, 1981; Van Parys, 1981; Watson & Amgott-Kwan, in press; Westerman, 1979). Indeed, concepts that are defined in terms of such a relation can probably not be understood before this period. The concept of social class, for instance, involves the relation of at least two classes, such as poor and rich (Naimark, 1981).

The change in role understanding seems to affect social relationships as well. Indeed, at the age of 4 children seem to begin to focus on social relationships per se. Evidence suggests, for example, that children's friendships first become true relationships at this age, with each friend fulfilling an expected role instead of being merely an enjoyable companion (Furman, 1982; Hartup, in press).

Besides social roles themselves, a number of other skills based on the capacity to relate social categories seem to develop at this age (Fischer, 1980; Fischer & Watson, 1981; Hand, 1981-a). Children begin to define many social categories in relational terms. The behavioral categories of work and play, for instance, are redefined in relation to adult and child: Adults work; children play (Tucker, 1979). The relations of adults to work and of children to play are clearly not social roles by the conventional definition, but they do involve the coordination of one social category with another.

Role intersections. At 6 to 7 years, children move beyond the simple social role to an understanding of role intersection (Step 12), in which they coordinate two social roles for one agent with two social roles for a second agent to form a system of social roles. For example, one doll can act as both doctor and father to a second doll, who is both his patient and his daughter.

Older preschoolers struggling with the facts of role intersection often exhibit a concern about conflicting role expectations. For example, when one of the authors was a graduate student, his son asked if he would still be the boy's father when he became a psychologist. After the father explained that a person can be both a psychologist and a father, the boy then asked, "Yes, but are you a teacher or a student? You teach school,

and you go to classes." He then asked how his father could be a teacher, a student, and a psychologist and still live at home. Clearly, the boy was struggling with role intersections. His concerns seemed to stem from his ability to understand social roles and the norms that accompany them without being able to intersect multiple roles. Perhaps the genuine concerns of children in such situations provide the impetus for their development to higher steps of role understanding.

The capacity to understand role intersections allows children to eliminate many confusions that plagued them in earlier years. Not only can their daddy be a teacher to his students, for example, but at the same time he can be a father to his children and a husband to their mother, who is his wife. Starting at about 6 years, children can thus coordinate the roles of parent and spouse because they can understand how both of their parents can fill two roles at once (Fischer & Watson, 1981; Watson & Amgott-Kwan, in press).

Likewise, children can eliminate earlier confusions they may have had about work and play: It is not true that work is always done by adults and play by children; both adults and children can play or work. With this new understanding the child may conceive of play as something that is fun and easy, while work is something that is not so much fun and hard (Tucker, 1979).

Major advances also occur in the understanding of roles and relations involving gender, age, race, and social class (e.g., Katz & Zalk, 1978; Leahy, 1981; Maccoby & Jacklin, 1974; Williams, Bennett, & Best, 1975). Children devise, for instance, a general schema for social class--a scale of goodness, wealth, or well-being on which individual people can be placed (Connell, 1978; Naimark, 1981). The ways in which this schema are

understood still remain concrete, of course, involving clothes, cleanliness, type of speech, and the like. But the schema can be sophisticated enough to include even the conception of a middle class between lower and upper classes.

It is at 6 to 7 years, then, that children begin to sort out the complexities of role intersections and combinations and thus to move rapidly closer to adults' understandings of roles. This development apparently explains why so much previous research has seemed to find that children do not understand social roles until the elementary school years (Watson, 1981). Tasks that are designed to assess conceptions similar to those of adults are likely to underestimate preschoolers' social-cognitive abilities. Only when tasks are explicitly designed to test a specific level of skill can researchers be confident that they are correctly assessing what children can do (Bertenthal, 1981; Roberts, 1981).

Throughout the elementary school years children build more and more complex and sophisticated forms of concrete role intersections. Then, beginning as early as 10 or 11 years of age, they can move beyond these concrete social categories and enter the next developmental cycle--the understanding of social systems and networks. The last steps in Table 1 (Steps 15 to 18) sketch part of this next cycle.

Other research. The series of studies that we conducted strongly supported the predicted developmental sequence for both the role of medical doctor with its complements and for the roles within the nuclear family. In addition, a number of studies from other laboratories support these findings. Generally, children's understandings of social categories have been found to progress from nonrelational categories based on salient behaviors to categories based on social relations to categories that involve

role intersections. The studies cited in the preceding discussion constitute only a small portion of relevant investigations.

In general, studies in other laboratories have used less structured methods and more complex or unfamiliar tasks, and they have not assessed each developmental step independently. Consequently, these investigations have come to more pessimistic conclusions about the abilities of preschoolers (e.g., Anderson, 1977; Chambers & Tavuchis, 1976; Emmerich, 1959, 1961; Greenfield & Childs, 1977; Jordan, 1980). In most cases, the ages for a particular developmental step were 2 to 3 years later than in our studies. This lag is not surprising, since our methods were specifically designed to detect the first blossoming of preschool children's understandings of social roles.

Development of Concepts of Social Interaction: Mean and Nice

Social roles constitute only one of a number of types of important social categories. People also establish categories that specify, for example, scripts for how to behave in specific situations, as in restaurants or theaters (Schank & Abelson, 1977), and categories that reflect how people are perceived by others (Harter, 1982; Livesley & Bromley, 1973; Rosenberg, 1979). One of the most significant types of social category for the preschool child involves modes of social interaction--how people interact with each other and what kinds of rules they follow in those interactions.

Among categories for social interactions, there is one related pair that seems to be especially salient to preschool children--nice and mean. At an early age, children learn to discriminate between the types of concrete behaviors that are laudable and those that are deplorable in the eyes of

others. In addition to simply labeling the categories, children also need to understand the relations between behaviors--how one person's nice behavior derives from another person's nice behavior, or how one person's mean behavior derives from another person's mean behavior.

Assimilating society's system for classifying different types of behaviors and comprehending the subtleties of social causality are not easy tasks for the child. Deep appreciation of the fine points of social interaction seems to require years of development and appears not to be completed until early adulthood or even later (Broughton, 1978; Fischer, Hand, & Russell, in press). Still, the development of this appreciation starts at a young age and occurs in a gradual step-by-step fashion throughout childhood. At each point in development, children have some way of classifying and accounting for social interaction.

Hand (1981-a) studied the development of children's capacity to differentiate and explain opposite types of social interaction throughout early and middle childhood. The sequence that she studied, outlined in Table 2, is similar to the sequence of social role development, although some of the particular steps tested were different. To trace development in a detailed but comprehensive manner, she used a variety of experimental tasks. First, the imitative pretending technique from the social role research was used to detect children's early understandings of social interaction: Children acted out stories about people their own age being either nice or mean. Second, other more open-ended measures were included to assess the children's understanding in less structured settings: Children made up stories of their own instead of imitating the experimenter's, and they answered a series of interview questions about the social

categories of nice and mean, good and bad, and smart and dumb. Subjects were 72 middle-class boys and girls ranging in age from 3 to 12 years. In a strong-scalogram analysis, 70 of the 72 subjects fit the predicted sequence perfectly. The results for the more open-ended conditions, as well as supportive research from other laboratories, will be described later.

Insert Table 2 about here

Behavioral categories. As with social roles, the development of social-interaction concepts seems to begin with the idea that people can act on their own as independent agents (Step 1). By the age of 3 years, most children can go beyond simple agency to use simple, concrete behavioral categories (Step 2), such as organizing two or more actions under the label "nice" (e.g., giving someone candy and saying, "I like you"). Of course, the particular categories children use depend on the kinds of interactions to which they are exposed.

Most 3-year-olds have such good control of the categories "nice" and "mean" that they can easily shift back and forth between them, making one doll act nice and then making another doll act mean, or vice versa (Step 3). They are unable, however, to understand that the same person can act both ways in a short period of time. For example, Livesley and Bromley (1973) reported that preschoolers who observed a person acting in opposite ways tended to think they had seen two different people. Three-year-olds are also unable to understand reciprocal relations between social categories--how the nice or mean behavior of one person may cause the nice or mean behavior of another person. Thus, they cannot yet comprehend social causality or influence involving such categories.

Relating categories of interaction. By the age of 4 to 4½ years, children have grown significantly in their ability to conceptualize social interaction. At this point, they begin to go beyond the separate behavioral categories of the 3-year-old and integrate two or three categories of behavior into a relation. This ability is similar to the relating of two behavioral roles into a social role such as doctor with patient. They can understand, for example, the combination of opposite behaviors in a single person, as when the same person is nice at one moment and mean a short time later (Step 4a). And they can understand social influence, in which one person acts mean to another person because that other person acted mean to the first person (Step 4b).

The ability to relate two behavioral categories enables the child to participate in the social milieu in a more independent and self-directed way than ever before. The capacity to adopt both perspectives in an interaction increases children's knowledge of each perspective (Flavell, 1977; Lawler, 1981; Selman, 1980). The child who can consider both her own behavior and that of another person simultaneously can use her own actions more effectively to influence the other's behavior in the interaction (e.g., Westerman & Fischman-Havstad, 1982).

However, there remain important limits to the 4½-year-old's thinking. Children this age cannot understand social influence as it relates to the combination of nice and mean. In other words, they cannot integrate their understanding that one person's behavior is caused by another person's behavior with their understanding that people can behave in both nice and mean ways. Consequently, they cannot comprehend how a set of social influences produces both positive and negative behaviors.

In addition, the 4½-year-old's abilities to understand social influence by itself or the combination of nice and mean by itself are severely limited by context. In contexts that do not provide explicit support for relating social categories, such as unfamiliar situations and verbal interviews, children of this age tend to fall back on more primitive behaviors, such as treating nice and mean as separate categories (Hand, 1981-b; Harter, 1982, in press).

Integrating multiple characteristics of interaction. Most 6- or 7-year-olds can integrate social influence with the combination of nice and mean to form a system for understanding social influence involving opposite behaviors. They can show how someone can act nice to one person and mean to a second person at the same time, because the first person acted nice to him and the other one acted mean (Step 6). Many children can also show an even more complex integration, in which one person acts both nice and mean to a single other person because that other person demonstrated both nice and mean behaviors to him (Step 7).

As with 4- and 5-year-olds, the social-interaction skills of elementary school children depend greatly on the amount of support provided by the situation. Without the help of a structured task, children typically show much less advanced behaviors (Hand, 1981-b). The ability to understand social influence involving opposite behaviors seems to come and go depending upon the degree to which the situation helps children to structure their behavior appropriately (Hand, 1981-a).

During the elementary school years, these skills are extended and consolidated so that they become less dependent on environmental support. Children become able to understand social influence involving opposite behaviors even in more open-ended tasks. At the same time, they expand

the range of categories in which they possess this understanding, applying it to situations involving more than two people and to pairs of social categories that are less concrete than nice and mean, such as smart and dumb or proud and sad (Hand, 1981-a; Harter, 1977, 1982). In addition, children at this age can use an increasingly diverse range of antecedents to account for people's actions.

The new ability to integrate multiple characteristics of social interaction has major ramifications for the child--at least as far-reaching as those arising at about age 4 from the ability to relate interaction categories. The 6- or 7-year-old can begin to simultaneously take account of two aspects of each of two actors' behaviors in an interaction. For instance, she can not only consider both another person and herself, but she can also appreciate that both people have the capacity to act in positive and negative ways (Hand, 1981-a; Harter, 1982). This capacity enables the child to coordinate her behavior with another person's in a much more effective and fine-tuned manner. Being able to think about her own positive and negative behaviors in relation to someone else's positive and negative behaviors means that the child can tailor her behavior closely to another person's. In this way she becomes able to increase her social effectiveness, improving her chances of accomplishing what she wants while satisfying the needs of the other person.

These new abilities have significant limits, however. They are very much tied to concrete observable behaviors and situations, like the specific acts and events that cause her friends to act nice or mean. At this point, the child is still unable to go beyond these concrete generalizations to a more powerful, abstract conceptualization of social interaction (Biggs & Collis, 1982; Hand, 1981-a; Harter, in press; Rosenberg, 1979).

A broader, more abstract conception of human behavior awaits the onset of abstract thinking in early adolescence--occurring at about age 12 in Hand's (1981-a) study of nice and mean behaviors. The advent of abstract thinking enables the person to move beyond explaining behavior via specific observable or easily inferrable facts to begin positing durable traits, values, or social influences to explain human interactions and social systems. Some of the early developments in this new phase are outlined in Steps 9 and 10 of Table 2. It takes years of development, of course, for the school-age child who can influence specific interactions to change into the adult who can operate in social systems and networks and influence society more broadly.

THE CONTRIBUTION OF CONTEXT TO DEVELOPMENT

Psychologists and educators sometimes describe skills as if they were unitary abilities: The child can read, the child understands conservation, the child comprehends social roles or social influence. Such statements imply that skills have a life of their own, separate from the contexts in which they are demonstrated. The evidence does not support such a view (Biggs & Collis, 1982; Feldman, 1980; Fischer, 1980; Flavell, 1971; Fleishman, 1982). The child who has mastered many basic reading skills is not able to read all material presented to him in school. The child who shows conservation of number commonly fails to show conservation of length. The child who can demonstrate an understanding of social categories in an imitative pretending task frequently cannot do so in an interview assessment (Hand, 1981-a).

This absence of unitary cross-situational abilities follows logically from the fact that both the child and the environment contribute to performance. There could be unitary abilities only if environmental variations

had minimal effects on behaviors. When describing children's skills, then, scientists and educators need to attend to the context in which each skill is manifested. All sorts of contextual variations typically produce significant differences in children's demonstrated level of ability. Factors that have been shown to affect developmental level include practice, familiarity, the presence of other people, the setting, and the form of the task (e.g., Cole & Riel, in press; Jackson, Campos, & Fischer, 1978; Nicolich, 1978).

The Relation between Competence and Spontaneous Performance

It would be unfortunate if all that could be said was that developmental level varies across contexts. Surely there must be order in the variations. Some recent findings suggest a type of order that would seem to have major implications for analyses of learning and development.

One of the most important dimensions along which contexts can vary seems to be the amount of structure or contextual support for children's behavior. Changes in the amount of support typically produce profound differences in the developmental level of behavior (Hand, 1981-b; Vygotsky, 1978). In general, greater contextual support increases the probability that children will demonstrate their highest capabilities. With less contextual support, a wider variety of behaviors are observed, and hence a wider range of behavioral differences occur both between and within individuals.

In our various studies of the development of social roles and interactions, however, a systematic developmental change was found in this relation. At different points in social-cognitive development, the relation between children's behavior in structured settings and that in less structured, more open-ended settings shifted dramatically.

Early in the preschool years, between approximately 1 and 4 years of age, children tend spontaneously to demonstrate their most advanced competence not only in structured settings but also in more open-ended ones. Later in the preschool years, starting at about 4 years, the pattern changes abruptly: Older children seldom show their most advanced competence spontaneously, but seem to require a structured setting to consistently demonstrate the best they can do. The shift from the first pattern to the second occurs precisely at the point where children begin to integrate social categories into social roles, social influence, and the like (Hand, 1981-b). According to skill theory, this point marks the shift to a new developmental level, beginning at about 4 years of age, at which children can relate categories or other kinds of representations within a single skill.

The research on social roles (Watson & Fischer, 1977, 1980) and on social interaction (Hand, 1981-a) has shown this same pattern. In both sets of studies, children's competence was measured by a structured assessment and in two spontaneous conditions. The experimenter administered the structured assessment (employing the imitative pretending technique) and then left the room, asking the child to play with the experimental toys and make up stories of her own. After returning, the experimenter asked the child to tell the best story she could. The "best story" and the stories from the play period constituted the two spontaneous conditions, both of which were scored according to the same developmental sequence used in the structured assessment (shown in Tables 1 and 2, respectively, for the two sets of studies). Children's highest performances in the two spontaneous conditions were virtually identical.

The question asked was, Did children show the same highest developmental step in the structured assessment and the two spontaneous assessments? In the social role studies, the shift from the first pattern to the second occurred at the step where children's competence (their highest step in the structured assessment) was social roles or beyond (Steps 8 and higher in Table 1). That is, children whose competence was no higher than Step 7 typically demonstrated that competence in both spontaneous conditions, but children who were capable of combining two or more roles in a relation were unlikely to show their competence in the spontaneous conditions, as illustrated in Figure 1 (Watson & Fischer, 1977, 1980; see also Largo & Howard, 1979).

Insert Figure 1 about here

Results from Hand's (1981-b) study of social-interaction concepts showed a similar shift at the first step where children had to relate two interaction categories (Step 4a in Table 2). Virtually all the children at this step demonstrated their most advanced level of competence in the spontaneous conditions, but virtually none of the children who were capable of relating two or more social categories exhibited this competence in the spontaneous conditions.

Thus, the evidence suggests that before children begin to relate social categories, they tend to perform spontaneously at their most advanced level of competence. Once they have begun to relate categories, however, more support from the environment seems to be required for them to demonstrate their competence involving relations of categories. Interestingly, the French psychologist Wallon (1970) described something

similar to this phenomenon. Before the age of 4, he said, children tend to be driven to master whatever they encounter. Starting at 4, on the other hand, they come to assert their own goals and are no longer so driven by the demands of the immediate environment. However, Wallon's description seems to have been based primarily on informal observations of children, and he reported no research testing this hypothesis.

Surely more research is needed to determine the extent of this phenomenon. Does it occur in most domains of cognitive development, or only in a few? It could be, for example, that with tasks that are very important emotionally, children will be more likely to spontaneously show their most advanced competence. Our hypothesis, however, is that the phenomenon is highly general (Fischer, Hand, & Russell, in press; Hand, 1981-a). If this hypothesis proves to be accurate, then it would seem to require a recasting of what scientists mean by "competence" (Rubin et al., in press).

Implications for Education and Other Forms of Socialization

According to these findings, children of early preschool age seem to require little special environmental support to perform at their most advanced developmental level. They seem naturally to engage with people and tasks in such a way that they directly practice and consolidate their newest skills. Thus, an educational program that maximizes opportunities to experiment with different materials and activities can be effective at this age. Likewise, in any socialization context, children of this age may tend naturally to function at their most advanced competence, so long as the environment does not interfere.

At approximately age 4, however, when the child has developed the capacity to integrate categories in a relation, the situation seems to shift.

More specific environmental support appears to become necessary to encourage children to develop and use their skills at their most advanced level. This is not to say that a curriculum for the child at this age should be highly regimented and directive, although some structure and specific encouragement will be helpful to the child's development. Such structure and encouragement will probably be most effective when children are naturally motivated to pursue a particular activity. A sensitive teacher or parent who can follow a child's interests and intervene at propitious moments to suggest new or more effective ways of pursuing an activity is likely to facilitate the child's development across a wide range of domains.

THE INTERACTION BETWEEN COMPETENCE AND USE OF SOCIAL CATEGORIES

Based on the research with structured assessments, the development of the understanding of social categories seems to be relatively straightforward, proceeding through three basic developmental levels in the preschool years. Infants cannot represent social categories, but at about 2 years of age, toddlers begin to understand agency--the ways that people can act on their own independently of the child. By 2½ to 3 years, children show the first level of true social categories: They can put together some of these independent actions to form their first single social categories--collections of behaviors and characteristics that form a class of social attributes. The second level, simple relations of social categories, first develops at approximately 4 years of age, when children can integrate two or more social categories into a skill for a social role, a type of social influence, or some other social relation. The third level, involving understandings of complex systems of social categories, first emerges at age 6

or 7 in forms such as social role intersections, social influence involving opposite behaviors, and multiple emotions in social interactions.

The portrait of social-category development clearly is not that simple, however, as demonstrated by the research on spontaneous performance. Structured assessments provide a good estimate of the child's best social abilities--his or her competence--but on the other hand, they also tend to constrain the child's behavior. As a result, much of the natural variability in behavior goes undetected in structured assessments. The best solution seems to be to use both structured assessments and measures of behavior in less structured contexts (Hand, 1981-b).

Behavior in less structured contexts is particularly significant in the process of socialization. The way children contribute to their own socialization may be especially notable in situations where their behavior is not severely constrained. Children strive to understand their society's categories and rules and to behave in accordance with them, but when the context allows a range of behaviors, the relation between understanding and behavior may be complex and interesting.

Importantly, understanding a social category is not the same as using it. Understanding seems to be a prerequisite for effective use, but there is probably not a one-to-one relation between understanding and use. When investigators have tested for a relatively simple relation--for example, that greater understanding of sex roles will lead to closer adherence to those roles--they have found nothing so simple (e.g., Marcus & Overton, 1978).

The use of social categories is naturally affected not only by level of understanding but also by a host of other factors--the child's own goals, the affective valence of a category, the society's emphasis on the cate-

gory, the exact nature of the connections among related categories, the demands of the immediate context. In addition, as we described above, the fact that a child has the competence to understand a category, as measured in a structured assessment, does not guarantee that he or she will demonstrate that competence in a different setting, particularly a less structured one. Thus, greater competence with a social category does not automatically lead to more use of that category or to more desirable behavior with respect to that category.

Unfortunately, there has been little research directly testing the relation between competence measured in a structured assessment and use in a less structured context. The paucity of research precludes any definitive conclusions, but the few existing studies do suggest systematic developmental changes in the relation. Each of the three major developmental levels of social categories seems to be characterized by certain kinds of distortions and biases in spontaneous use, which affect how children at each level comprehend and react to socialization pressures.

Middle Preschool: "Globbing" in Behavioral Categories

At the first developmental level, 3-year-olds build single behavioral categories. In spontaneous behavior, older children also use these categories in a manner that seems to be characteristic: They mix together components that are in fact separate, showing a process that we have called "globbing" (Fischer, Hand, & Russell, in press). Because the child does not relate categories, she cannot compare and differentiate them (Fischer, 1980; Werner, 1957). As a result, she has difficulty separating related social categories, which become mixed together in a glob. Elements of one social category are combined with elements of a second one to create an original, but often unrealistic, globbed category.

Although our informal observations suggest that globbing of social categories is commonplace in 3- and 4-year-olds, research conducted on children of this age is scant, and we know of only two empirically documented examples of globbing--one involving age and one involving race. Edwards (in press) studied preschoolers' ability to discriminate photographs of people by age. Most 3- to 4-year-olds (mean age 3.9) could easily separate children into "little ones and big ones," but when asked to indicate which group they themselves belonged to, they made a systematic error. Most of the boys placed themselves with the big children, even though they in fact belonged with the little ones, while most of the girls placed themselves with the little children. By the age of 4 to 5 years (mean age 4.7), the effect had disappeared, with children of both sexes placing themselves in the big category half the time and in the little category half the time. This distribution of responses was appropriate, since 4- and 5-year-olds were close to the age border between the small and large groups.

Edwards interpreted the younger children's systematic errors as reflecting a mixing together, or globbing, of size with gender: Since boys are males and men tend to be bigger than women, then boys must be big. Similarly, since girls are females and women tend to be smaller than men, then girls must be little. While this confusion of size with gender seems to disappear by 4 to 5 years of age, at least in simple tasks, a tendency to confuse size with another dimension, age, continues until 7 or 8, apparently because these two characteristics are in fact so closely related (Kratochwill & Goldman, 1973).

Van Parys (1981) uncovered a second instance of globbing in the use of the category of race by 3-year-old black children. Middle-class black

and white children 3, 4, and 5 years of age sorted drawings of people into categories based on sex, age, and/or race. A number of black children, especially 3-year-old boys, systematically classified themselves incorrectly by race. When asked to place themselves in a black or white category, they placed themselves with the whites. Independently, these same children demonstrated both the competence to discriminate race accurately and the tendency to use race spontaneously: They showed good skill in classifying drawings of other people as black or white, and they tended to focus on other people's race in tasks where they could have focused on sex or age instead. By 5 years of age the misclassification of self had disappeared. Similar confusions about race have been documented in several classic studies: Young black children tend to classify themselves as white and to prefer white dolls and white playmates (Clark & Clark, 1947; Goodman, 1964; Porter, 1971), although there is some variation in these results across studies (Katz, 1982) and tasks (Van Parys, 1981).

In this instance of globbing, 3-year-olds seem to mix together goodness with white and badness with black, assigning negative characteristics more to dark-skinned people than to light-skinned ones (Clark, Hocevar, & Dembo, 1980). According to this interpretation, they know that they themselves are good, and they think that it is better to be white than black. Consequently, they put themselves in the globbed category of "good" white, despite the fact that they are black.

Despite the paucity of research on early social categories, the child psychoanalytic literature suggests that these instances may reflect a fundamental characteristic of the way young preschool children think (e.g., A. Freud, 1966; Mahler, Pine, & Bergman, 1975). Because of their primitive developmental level, young children consistently combine categories that do

not belong together and thus construct categories that distort social reality in extreme ways. This globbing process bears some similarity to what Freud (1955) called condensation, a process in which two or more objects or people are combined in a single image or thought, as when a person in a dream seems to be the dreamer's spouse and parent at the same time. Contrary to Freud's interpretation, globbing does not need to be unconsciously motivated, since it seems to be a characteristic of certain levels of thinking (Feffer, 1982; Fischer & Pipp, in press-a).

Late Preschool: Oversimplified Relations between Social Categories

By 4 to 4½ years, most children can begin to relate two social categories and so move beyond gross distortions of behavioral categories. This new capacity leads to a major increase in sophistication, as shown in the research involving social roles and social interactions. Children can start to understand how doctors relate to patients, mothers to fathers, and so on--as well as how one person's actions towards another affect that second person's responses to the first.

In real-life situations, however, relations of social categories are usually complex. Each person occupies multiple social categories, often at the same time, and the distinctions between categories are often subtle. Faced with these complexities, 4- to 6-year-olds tend to oversimplify the relations between categories. The oversimplifications seem to take at least two forms. First, children treat related categories as sharply distinct and miss the subtleties of differences--in effect, stereotyping social categories. Second, when relations in fact overlap, children mix them up, showing a form of globbing that is more sophisticated than that occurring at the previous level of understanding single categories.

Stereotyping. While there have been no definitive studies of the development of stereotyping in the preschool years, the emergence of the capacity to relate social categories often seems to lead to extreme stereotyping of salient social categories, including those involving gender, race, class, and age. Many children of this age show a remarkable surge of stereotyping, even in the face of blatantly contradictory evidence. Sex stereotyping seems to be especially common. One 4-year-old boy, for example, asserted that women wear dresses, even though his own mother almost always wore pants. A 4-year-old girl insisted on wearing pink dresses and party shoes, even on the playground.

Indeed, research on both sex-role and racial categories suggests that stereotyping may follow a standard developmental course. For sex roles, children show some evidence of stereotyping as early as 3 years of age, and sex stereotyping seems to be well established by 4 to 5 years (e.g., Kuhn et al., 1978; Williams, Bennett, & Best, 1975). The degree of stereotyping then appears to increase to a maximum at age 7 or 8 (Damon, 1977; Maccoby, 1980). During the elementary school years, the trend reverses, and stereotyping begins to slowly decrease, with children showing more flexibility about gender roles (Carter & Patterson, 1982).

For race categories, the first evidence for stereotyping of blacks and whites appears as early as 3 years of age. There then seems to be a surge in this stereotyping throughout the rest of the preschool years (Clark et al., 1980; Clark & Clark, 1947; Katz, 1982; Stevenson & Stewart, 1958). Stereotyping of black as negative and white as positive appears to peak in the late preschool and early elementary school years. After the age of 7 or 8, racial stereotyping appears to decrease systematically throughout the elementary school period (Clark et al., 1980; Katz,

1982; Katz & Zalk, 1978; Williams, Best, & Boswell, 1975). At the least, children in this period come to deal more accurately with the demands of the immediate situation, understanding, for example, that it is often undesirable to state a blatant stereotype.

A plausible interpretation of the data on racial stereotyping is that starting at 4 or 5 years, black children stop the extreme globbing of racial categories that is characteristic of the previous level. Now, instead of sometimes thinking of themselves as white, they gradually come to accept their race. In the late preschool years, however, children tend to stereotype black as negative; consequently, they may experience great difficulties with their racial self-image. Perhaps only in the elementary school years, when they can begin to deal with the complexities of racial categories, will these children be able to resolve the apparent conflict engendered by their earlier oversimplified understanding of race.

The developmental course for stereotyping suggested by these findings for gender and race can be divided into four main phases. (1) With the development of behavioral categories at approximately 3 years of age, children show evidence of some stereotyping. (2) At 4 to 5 years, there seems to be a surge in stereotyping, apparently arising from the fact that children become able to understand role relations. For instance, they become capable of treating boys and girls as, in some senses, opposites. (3) Stereotyping seems to reach its peak or maximum between 6 and 8 years. By this age, children have had sufficient time to master the oversimplified role relations that they began to develop a few years earlier. In addition, children are moving into a new developmental level at this age, and one characteristic of the transition seems to be that skills from the previous level show a developmental spurt (see Fischer, Pipp, &

Bullock, in press). Thus, children's oversimplifications may peak at this time. (4) After 7 or 8 years, stereotyping seems to decrease or become more qualified as children become able to deal with complex relations among real-life social categories.

The development of other sorts of stereotyping may well follow this same model. Categories and attitudes toward social class or age, for example, may move through a similar progression (see Connell, 1978). Also, the distortion of role relations is not limited to emotionally loaded roles like those involving race and gender but is also evident in less loaded social categories, such as work and play. Tucker (1979) found that many 4- and 5-year-olds believe work is what adults do, play what children do. According to this stereotyped way of thinking, children cannot work and adults cannot play.

It is important to realize, however, that this developmental portrait of stereotyping will not hold for all definitions and measures of stereotyping. Only the simplest types of stereotyping will occur at these early ages. More complex types, such as those requiring conceptions of social institutions or networks, will of course not develop until later.

What seems to be characteristic of the late preschool years, then, is that for the first time children become competent enough to understand and use the concrete stereotypes that they encounter in their everyday social lives. Thus, stereotyping in this period arises naturally from the combination of the social reality they experience with the limitations of their ability to understand that reality.

Globbing. The oversimplified relations of categories in the late preschool years produce not only stereotyping but also a form of globbing. Of course, the globbing of relations of categories is not as primitive as the

globbing of single categories at the previous level. Instead of mixing together individual categories, children seem to mix together category relations that overlap in real life.

The many overlapping social roles in the nuclear family appear to provide a particularly rich source for this type of globbing. A child's father is an adult, a male, a man, a husband, and a father all at the same time. The man's daughter is a child, a female, a girl, a daughter, and often a sister. With so much overlap, 4- to 6-year-olds cannot get all the relations straight. They can think about simple relations between categories, but they cannot form a broader framework to grasp the way each category relates to all the others. The several roles of parents seem to be especially likely to be globbed: Husband/wife, father/mother, man/woman, and male/female are collapsed into a single role relation, usually referred to by the child with the labels "Mommy" and "Daddy." Children do not seem to be able to understand, for example, that their mother and father simultaneously fill both parent and spouse roles (Watson & Amgott-Kwan, in press).

Globbing of the overlapping roles of parents seems to provide the basis for an emotional drama that is common in nuclear families--what Freud (1924/1961) called the Oedipus conflict. The essence of this conflict is that the child tries to take the place of the same-sex parent as the object of affection of the opposite-sex parent: The boy tries to replace his father, the girl her mother. The child can attempt such a simple substitution because he globs overlapping roles. In the collapsed role relation Mommy/Daddy, the child focuses on the fact that Mommy and Daddy are a female and male who have a special relationship. Because other characteristics of Mommy and Daddy are overlooked, any male can

substitute for Daddy or any female for Mommy, and so a child can easily take over the place of the same-sex parent (Fischer & Watson, 1981).

Presumably, many other examples of globbing of relations also occur in the late preschool years. Uncovering such distortions would seem to be particularly relevant to understanding emotional development during this age period. In the same way that globbing family relations seems to have emotional consequences in the family, globbing other types of relations would seem likely to have other important emotional consequences.

Effects of social evaluation. Along with learning the most basic relations among social categories in their society, children of 4 to 6 years of age also appear to learn society's evaluations of prominent social categories. Their new ability to understand relations enables them to compare social categories in order to evaluate them. Four- to 6-year-olds are thus able to determine the importance and value of categories such as male and female or black and white in their society.

Van Parys' (1981) study demonstrates how children learn and use such evaluations. She administered a number of choice tasks to 72 3-, 4-, and 5-year-old black and white middle-class Denver children. Each child sorted drawings into categories that required him or her to choose among various combinations of gender, age, and race--putting together the ones that were similar to each other in some tasks and the ones that were like the self in other tasks. She thus obtained measures of the psychological salience or importance to the children of the three types of categories.

Three-year-olds did not show any consistent pattern of choice, except that many of them tended to ignore race. Four- and 5-year-olds, on the other hand, showed a pattern of choice that seemed to match the way middle-class adults use the categories. Gender was used most often, age

next most often, and race least. This finding cannot be explained in terms of the physical salience of the categories in the drawings because the figures were drawn to minimize salience differences. In addition, if one category were physically most salient, it would have been age, since the children and adults in the drawings differed obviously in size. Also, research has shown that the age dimension is generally salient for both infants and toddler (Brooks & Lewis, 1976; Edwards, in press).

Van Parys' results indicate, then, that when gender, age, and race are in question, gender is the dimension that 4- and 5-year-olds attend to most, although they also attend frequently to age. In her sample, only a few children focused on race. Interestingly, however, different subgroups of children showed different rankings of categories as a function of their own gender and race. These differences seemed to reflect the statuses of the categories to which the children belonged. In white middle-class culture, males are generally valued more than females, and for tasks in which children were describing themselves, white boys and girls made choices that reflected this difference. Four- and 5-year-old white boys showed the general pattern, selecting on the basis of gender more than age, but white girls of the same ages de-emphasized gender and emphasized age, choosing on the basis of age more often than gender. Both groups used race the least often.

With black children the patterns of choice were different, apparently reflecting the more positive evaluation of females in black American culture (Weston & Mednick, 1970). Four- and 5-year-old black girls tended to follow the general pattern of selecting on the basis of gender more than age, but black boys of the same age de-emphasized gender and chose more often on the basis of age than did black girls.

These complex effects of the children's own characteristics were further complicated by the effects of various tasks. Seemingly minor variations in the assessment tasks sometimes produced major changes in the patterns of choice. It is not known whether these task effects were the result of the young ages of the children participating in the study or whether they would also be characteristic of older children's and adults' choices. Studies that use only one task, it would seem, cannot make legitimate conclusions about the general patterns of choice in preschool children.

By 4 or 5 years of age, then, children seem to have learned the basic social categories that they encounter in their society and to have organized those categories into relations reflecting their society's reality and values. Because of the limits of their understanding, they tend to stereotype social relations, but their stereotypes are primarily exaggerations of the realities of their society. It might be said that 4- and 5-year-olds often understand the relations of social categories in their society all too well.

Elementary School: Realistic Systems of Social Categories

The social-cognitive advance that begins at 6 or 7 years has pervasive implications for children's social behavior. With the ability to integrate multiple social categories in complex relations such as role intersections, children can move past the distortions and confusions of earlier years and understand the social categories around them in concrete detail. Many societies acknowledge this ability to understand the complexities of social behavior by giving children new social responsibilities at this age (Rogoff, Sellers, Pirrotta, Fox, & White, 1975; Weisner & Gallimore, 1977).

Starting at 6 or 7 years, children begin, for example, to take responsibility for care of younger siblings and for important chores, such as tending livestock and preparing food.

The advent of this new ability seems to explain why most previous research has found that social categories, especially social roles, are not understood until the elementary school years (e.g., Bigner, 1974; Marcus & Overton, 1978; Piaget, 1924/1928). Although that conclusion was clearly overdrawn, it is true that preschool children cannot understand complex tasks dealing with social categories and that elementary school children can eliminate most of the distortions that are so common in preschoolers' use of categories.

Indeed, once children correct these distortions, they seem to reject them vehemently. Freud (1924/1961) reported, for example, that when elementary school children correct the Oedipal belief that they can substitute for their same-sex parent and marry their opposite-sex parent, they emotionally reject the idea of doing so, often finding the thought repulsive and denying that they ever entertained it. In a less emotional domain, Tucker (1979) discovered a similar phenomenon. After children correct their belief that work is what adults do and play is what children do, they have difficulty even pretending to have the belief. That is, in a game about work and play they cannot make a doll act as if it believed that what adults do is work and what children do is play.

More generally, children's conceptions of social categories move toward an accurate reflection of the concrete realities of their society. The oversimplified stereotyping of the previous level gives way to a more moderate or qualified form that captures accurately the society's definitions of social relations. Even for difficult concrete concepts, reality seems to

play a greater role at this age than earlier. For example, because they can begin to comprehend concepts like wealth, children come to understand social class better. Thus, although social class stereotyping may blossom, lower and upper classes are less likely to be confused with good and bad. Complex issues concerning occupation and status enter the child's interpretation of class (Connell, 1978; Leahy, 1981; Naimark, 1981).

The realistic systems of social categories at this age are not completely free of distortion, however. Their accuracy in mirroring concrete reality seems to produce a type of distortion--a literalness in the interpretation of social categories and relations. Because children of this age are not yet able to place social relations in the broader context of social systems, they show a rigid or literal adherence to many social rules, including those for gender (e.g., Kohlberg, 1966; Williams, Bennett, & Best, 1975) and for "proper" behavior (e.g., Adelson, 1975; Harter, in press). One 8-year-old boy, for instance, was shopping with his mother and 1-year-old baby sister at the supermarket. At one point his mother took a few steps away from the shopping cart in which the baby was sitting, and the 8-year-old self-righteously pointed to a sign on the cart and said, "Mother, it says right here, 'Do not leave baby unattended.'" A 7-year-old girl was upset when her father came to pick her up from school on Mothers' Visiting Day, because, she said, only mothers were allowed to be at school that day, not fathers.

One of the best-documented facts of spontaneous social behavior in the elementary school years is that children separate into unisex groups (Maccoby & Jacklin, 1974). Girls play primarily with other girls, and boys primarily with other boys. Likewise, children of this age form close friendships almost exclusively with children of the same sex (Furman,

1982). These social patterns seem to be consistent with the children's concrete, stereotyped understandings of gender roles. Boys and girls are understood to be different in many specific ways and even considered to be opposites. Consequently, children associate with those who are like themselves--other children of the same sex.

Although we know of almost no research that has directly tested how children's understandings of social categories and rules mesh with their social behavior at this age, it would seem that many of the salient characteristics of elementary school social behavior relate in a similar way to children's new understandings. For example, structured games become a major part of social interaction in the elementary school years. When children play cops and robbers, they need to keep track of role intersections because each child fulfills both a pretend role (cop or robber) and a real role (Johnny the 9-year-old or Jason the 8-year-old). In games like hide-and-seek or dodge, they need to be able to keep track of rapidly changing roles: A minute ago Nicole was "It" and I had to avoid her, but now I am "It" and have to catch Nicole. In a similar vein, children this age begin to strive to emulate attractive heroes or heroines in their lives. They are able to do so because they can consider the other's observable attributes in relation to their own in order to modify their own to become more like their idol's (Fischer & Watson, 1981; Kagan, 1958; Ruble, in press).

In general, then, children of elementary school age seem to have the capacity to understand the concrete realities of social life and thus to develop a new range of social skills, which allow them to act effectively in social relations.

CONCLUSIONS: INDIVIDUAL AND CULTURAL COMPLEXITY

Societies routinely teach children categories that define how everyone in the society is supposed to act. In scientists' analyses of this socialization process, the contribution of the developing child has typically been lost. Social categories are always realized in behavior through the child's understandings and motivations, and therefore a full analysis of socialization requires taking into account the child's understanding and use of social categories.

The portrait we have painted of the early development of social categories is straightforward. Children proceed from an awareness of single behavioral categories to simple relations of categories to complex systems of categories. For each of these three developmental levels, children also seem to show characteristic modes of distortion when faced with situations that require more advanced skills than they can produce. With single behavioral categories, they demonstrate the process of globbing, in which several categories are mixed together. Simple relations of categories are characterized by stereotyping based on the evaluations of the categories by society; when faced with complex relations between categories, children also tend to mix up or glob relations that overlap in the real world. With respect to the third level, complex systems of categories, children construct realistic understandings of concrete social categories and the relations among them. The distortion that seems to be typical of this level is a rigid or literal adherence to the particulars of a social rule or category.

It is important, however, not to misinterpret this developmental sequence. An individual child is not at a single level in any simple sense. The levels are characteristic of specific combinations of child and environment, as noted earlier. Of the many explications of this proposition, three seem to be especially important.

First, children do not show the same level across all situations. Instead, performance is uneven, with the same child showing large variations in developmental level in different contexts. The particular social categories that children understand at their highest level are those that are more generally emphasized or accentuated by the children's families and society. Different societies and different subcultures within a society will teach different social categories to their children (Edwards & Whiting, 1980; Weisner & Gallimore, 1977). In addition, children within one society or culture will also vary in their understanding and use of social categories.

Second, even for the same social categories measured in the same general situation, a child will often function at different developmental levels as a function of the degree of structure or support provided by the immediate context. The ages assigned to each step in the development of social categories reflect the period of the first appearance of the new capacity in middle-class children performing simple structured tasks specifically designed to elicit relevant behaviors. In most situations most children will not show the respective skill at the designated earliest age.

Third, the degree of disparity between developmental level in structured and "spontaneous" contexts seems to increase in the late preschool years. Before approximately 4 years of age, children commonly appear to produce the highest developmental level of which they are capable, even when the situation does not demand it of them. After age 4, they become less likely to perform at their highest level unless the situation is structured to elicit such performance. Consequently, in spontaneous behavior 4- to 7-year-olds are unlikely to show evidence of high-level functioning. Even when capable of using, for example, systems of categories in struc-

tured tasks, children this age will normally show one of the lower levels in an unstructured task. When functioning at these lower levels, they will evidence distortions and confusions similar to those of younger children.

Although the development and use of social categories in the pre-school years seems to be highly systematic, the systematicity cannot be understood by considering the child alone. Analysis of the collaboration between child and environment is required. Good teachers know how to take account of this fact in their everyday interactions with children, but researchers and theorists have only begun to deal with the processes by which child and environment collaborate to produce developing behavior.

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Figure 1. Relation between Competence and Spontaneous Behavior in the Social Role Studies. Adapted with permission from Watson and Fischer (1980).

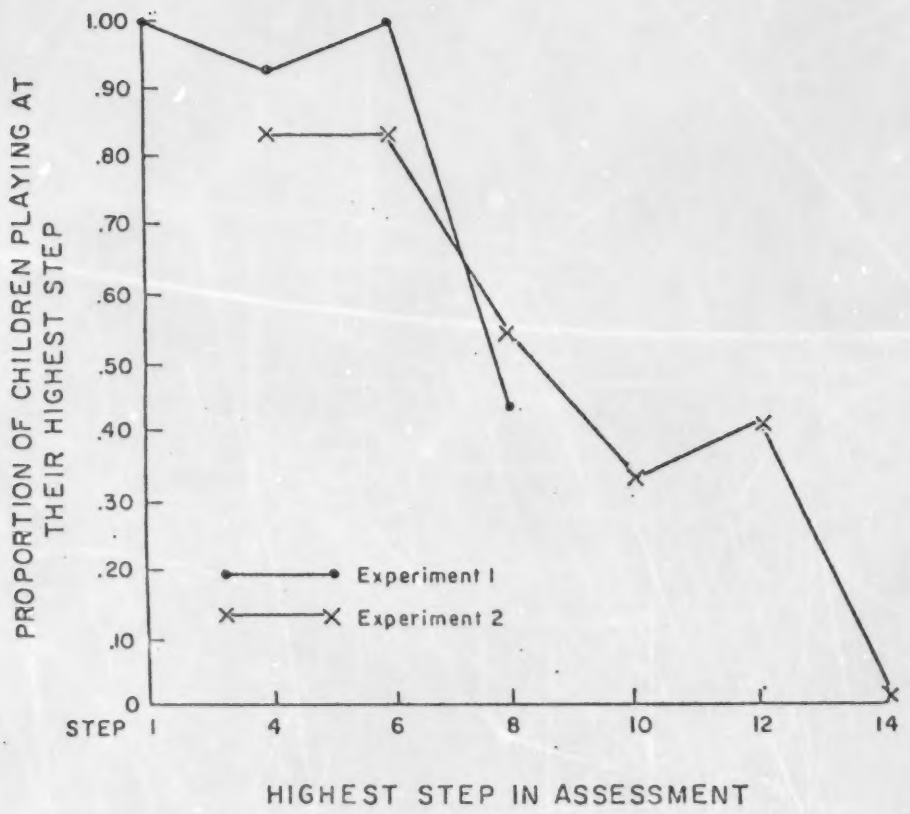

TABLE 1

A Sequence of Social Role Development

Level	Approximate Age of Emergence*	Step	Skill	Examples** Doctor Role Studies	Family Role Studies
I: Single Social Categories	2 - 3 years	1	Self as agent: A child pretends to carry out one or more behaviors, not necessarily fitting a social role.	Child pretends to drink from a cup or wash himself or herself.	
		2	Passive other agent: A child pretends to make a person carry out one or more behaviors, not necessarily fitting a social role.	Child makes a doll drink from a cup or washes the doll, without the doll acting.	
		3	Passive substitute agent: A child pretends to make an object act as a passive agent, as in Step 2.	Child makes a block drink from a cup or washes the block, without the block acting.	
		4	Active other agent: A person performs one or more behaviors, not necessarily fitting a social role.	Child has a doll drink from a cup or wash itself as if it were carrying out the action itself.	Child labels and describes one or more activities of a doll.
		5	Active substitute agent: An object behaves as an active agent, as in Step 4.	Child has a block drink from a cup or wash itself as if it were carrying out the action itself.	
		6	Behavioral role: A person performs several behaviors fitting a social role, such as doctor.	Child has a doll, as a doctor, use a thermometer and an otolaryngoscope.	Child describes a father in terms of his typical behaviors.

TABLE 1 (Continued)

Level	Approximate Age*	Step	Skill	Examples** Doctor Role Studies	Family Role Studies
		7	Shifting behavioral roles: One person performs one behavioral role, as in Step 6, and then a second person performs a different behavioral role. For instance, the first person acts as a doctor, then the second acts independently as a patient.	Child has a doll, as a doctor, use a thermometer and an otolaryngoscope. Child then has another doll, as a patient, say it is sick and go to bed.	
II: Relations between Social Categories	4 - 5 years	8	Social role: One person behaving according to one role, such as doctor, relates to a second agent behaving according to a complementary role, such as patient.	Child has a doctor doll examine a patient doll and respond appropriately to the patient's complaints.	Child describes a father in terms of the father having children and taking care of his children.
		9	Shifting social roles with one common agent: Two people perform a social role, as in Step 8, and then one of them performs a different social role with a third person. For instance, the first two people act as doctor/patient, then the second two act independently as patient/nurse.	Child has a doctor doll examine a patient doll and respond appropriately to the patient's complaints. Child then has the patient doll interact appropriately with a nurse doll.	Child describes how a father has children and then how he can change to a grandfather when he has grandchildren.
		10	Social role with three agents: One person in one role, such as doctor, relates simultaneously to two other people in complementary roles, such as nurse and patient.	Child has a doctor doll relate to a patient doll with the aid of a nurse doll. All dolls respond appropriately to each other.	

TABLE 1 (Continued)

Level	Approximate Age*	Step	Skill	Examples** Doctor Role Studies	Family Role Studies
		11	Shifting roles for the same agents: Two people perform a social role, as in Step 8, and then they perform a different social role, such as father relating to child. For instance, they first act as doctor/patient, then act as father/child.	Child has a doctor doll relate appropriately to a patient doll and then has an adult doll act as a father to his child.	
III: Systems of Social Categories	6 - 9 years	12	Role intersection: Two agent-complement role relations are coordinated so that one person can be in two roles simultaneously, such as doctor and father, and relate to both complementary roles, such as patient and daughter.	Child has a doctor doll examine a patient doll and also act simultaneously as father to the patient, who responds as both his patient and his daughter.	Child describes how a father can be simultaneously both a father to his children and a grandfather to his grandchildren.
		13	Shifting role interactions with one common agent: Two agent-complement role relations are coordinated, as in Step 12, and then one of those people performs a different pair of agent-complement role relations with a third person. For instance, the first two people act as doctor-father/patient-nurse, then the second two act independently as doctor-husband/patient's mother-wife.	Child has a doctor doll examine a patient doll and also act as father to the patient, as in Step 12. Child then has the doctor doll interact as doctor and husband with a woman doll, who acts as both mother of patient and wife.	

TABLE 1 (Continued)

Level	Approximate Age*	Step	Skill	Examples** Doctor Role Studies	Family Role Studies
		14	Role intersection with three agents: Three agent-complement role relations are coordinated so that one person can be in three roles simultaneously, such as doctor, father, and husband, and relate to the complementary roles, such as patient and daughter for a second person and patient's mother and wife for a third person.	Child has one doll behave as a doctor and father to a second doll and as a doctor and husband to a third doll. The second doll interacts as the patient and daughter, and the third doll interacts as the patient's mother and the doctor's wife.	Child describes how a father can be simultaneously a son, father, and grandfather in terms of the complementary roles.
IV: Abstractions about Social Categories	10 years and older	15	Simple role network: At least two role intersections are intercoordinated and compared to form a definition of a complex role system, such as that relating two generations within a family.		Child compares family role relations across two generations and recognizes a family in terms of intersecting spousal and parental roles.
		16	Expanded role network: At least three role intersections, as in Step 15, are intercoordinated and compared, such as three generations within a family.		Child compares family role relations across three generations, including a future generation.
		17	Comparison of role networks: At least two role networks, such as a traditional family unit and a family unit with only one parent, are intercoordinated so that the similarities and differences between them can be recognized.		Child compares a family with both spousal and parental roles (a traditional family) with one that has only one of those roles--the spousal role in childless couples or the parental role in single parent families.

TABLE 1 (Continued)

Level	Approximate Age*	Step	Skill	Examples** Doctor Role Studies	Family Role Studies
		18	Reciprocal role networks: Both the similarities and differences of role networks are simultaneously considered, and one general network system, such as that relating to the various types of families, is abstracted.		Child recognizes the essential components of both traditional and nontraditional families in terms of role relations and functions.

Note: Portions of this table are adapted with permission from Watson (1981). Studies testing portions of the table include Watson and Fischer (1977, 1980), Watson and Amgott-Kwan (in press), and Westerman (1979).

*Ages vary widely across tasks and conditions and are therefore given only for general developmental levels. These ages indicate when the skills at each level first appear in middle-class children.

**For the respective domains, examples are given only for steps actually assessed in the studies.

TABLE 2

A Developmental Sequence for Understanding
Nice and Mean Social Interactions

Level	Approximate Age of Emergence*	Step	Skill	Examples
I: Single Social Categories	2 - 3 years	1	Active other agent: A person performs at least one behavior not necessarily fitting a social-interaction category.	Child pretends that one doll picks up a ball or suggests playing with another doll.
		2	Behavioral category: A person performs at least two behaviors fitting an interaction category, such as "nice" or "mean."	Child has one doll act nice to another doll, giving it candy and saying, "I like you." The second doll can be passive.
		3	Shifting behavioral categories: One person performs at least two behaviors fitting the category "nice," as in Step 2, and then a second person performs at least two behaviors fitting the category "mean."	Child has one doll act nice to a second doll, giving it candy and saying, "Let's play." A third doll enters and acts mean to the second one, hitting it and saying, "Give me your ball!" In both cases, the second doll can be passive.
II: Relations between Social Categories	4 - 5 years	4a**	Combination of opposite categories in a single person: One person performs behaviors fitting two opposing categories, such as "nice" and "mean."	Child has one doll act nice to a second doll, saying, "Let's be friends" and giving the doll candy. The first doll then hits the second, saying "Since we're friends you should give me your ball!" The second doll can be passive throughout.

TABLE 2 (Continued)

Level	Approximate Age of Emergence*	Step	Skill	Examples
		4b**	One-dimensional social influence: The behaviors of one person fitting an interaction category such as "mean" produce reciprocal behaviors fitting that category in a second person.	Child has one doll say mean things and hit another doll, who responds by hitting and expressing dislike for the first one. The second one's behavior is clearly produced by the first one's behavior.
		5	One-dimensional social influence with three characters behaving in similar ways: Same as Step 4b, but with three people interacting reciprocally according to a social category.	With three dolls, child has one tease the others, while a second one hits the others. The third doll rejects both of the first two because they are mean.
		6***	One-dimensional social influence with three characters behaving in opposite ways: The behaviors of one person fitting a category such as "nice" and those of a second person fitting an opposite category such as "mean" produce reciprocal behaviors in the third person fitting the corresponding categories.	With three dolls, child has one tease the others, while a second one hits the others. The third doll responds nicely to the first doll and meanly to the second.
III: Systems of Social Categories	6 - 9 years	7	Two-dimensional social influence: Two people interact in ways fitting opposite categories, such that the first one acts, for example, both nice and mean, and the second one responds with reciprocal behaviors in the same categories.	Child has one doll initiate friendship with a second doll but in a mean way. The second one, confused about the discrepancy, declines the friendship because of the meanness. The first then apologizes and makes another friendly gesture, which the second one responds to accordingly.

TABLE 2 (Continued)

Level	Approximate Age of Emergence*	Step	Skill	Examples
		8	Two-dimensional social influence with three characters: Same as Step 7 but with three people interacting reciprocally according to opposite categories.	With three dolls, child has one doll act friendly to a second one, while a third one initiates play in a mean way. The second doll acts friendly to the first one and rejects the third, pointing out the latter's meanness. The third then apologizes for being mean, while the first one does something new that is mean. The second doll accepts the third one's apology and rejects the first one, pointing out the change in his or her behavior.
IV: Abstractions	10 years and older	9	Integration of opposite behaviors in terms of a single abstraction: Two instances of interactions like that in Step 7 take place, and the relations between the two interactions are explained in terms of some general abstraction, such as that intentions matter more than actions.	With three dolls, child has one act friendly to a second, while a third initiates play in a mean way. The second doll responds to each accordingly, but then learns that the nice one had mean intentions while the mean one had nice intentions. The second doll then changes his or her behavior to each to match their intentions and explains that he or she cares more about people's intentions than their actions.